

**RADIATION EMITTER DEVICE HAVING
AN INTEGRAL MICROGROOVE LENS**

ABSTRACT OF THE DISCLOSURE

The radiation emitter device of the present invention includes at least two radiation emitters emitting radiation of different wavelengths, first and second electrical leads electrically coupled to at least one of the radiation emitters, and an encapsulant configured to encapsulate the radiation emitters and a portion of the first and second electrical leads. The encapsulant is further configured to have a surface defining an optical lens including a plurality of concentric circular grooves. The optical lens is preferably a divergent lens. Preferably, the lens is a multi-faceted Fresnel lens structure having a plurality of risers and Fresnel facets defining the plurality of concentric circular grooves. The radiation emitter device may further include a secondary reflective cup, preferably a parabolic or elliptical reflective cup, disposed proximate the encapsulant about the periphery of the Fresnel lens structure.